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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,188	02/17/2004	Tatsunari Mii	85A 3504	1769

3713 7590 06/21/2005

KODA & ANDROLIA
2029 CENTURY PARK EAST
SUITE 1140
LOS ANGELES, CA 90067

EXAMINER

ABOAGYE, MICHAEL

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/781,188

Applicant(s)

MII ET AL.

Examiner

Michael Aboagye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02/17/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Imai et al. (US Patent no. 6715666).

Imai et al. teaches a wire bonding method comprising: forming a bump on a second conductor by ball bonding on the second conductor while positioning the capillary above the second conductor; forming an inclined surface on the upper end of the bump by moving the capillary upwards, laterally moving the capillary to the side of the bump away from the first conductor, and moving the capillary downwards, followed by cutting the wire; first bonding one end of the wire to the first conductor; then the wire is looped from the first conductor to the bump and second bonding the wire extending from the bore of the capillary and the inclination surface of the bump by means of a lower end portion of the capillary while

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positioning the capillary at the inclination surface of the bump, and cutting the wire at a portion thereof near the bonded portion.

(Fig. 2(A –G), Fig. 7(E – G); Column 2, lines 36 –54 and abstract).

Imai et al. does not specifically disclose the step, raising the capillary to a height that is equal to or lower than the height that is equal or lower than the height of the ball portion that rises into a through- hole of the said capillary during the formation of the bump. According to the embodiment of the method of forming the inclined surface on the bump, Imai et al. discloses a step wherein in, the capillary is raised vertically to a height above the second conductor, laterally moving the said capillary to the side of said bump away from the first conductor (Fig. 5(A – D); lines, 54 -65). This disclosure inevitably and inherently would have the steps to accomplish the formation of inclined surface on the bump.

Conclusion

The Prior art made record and not relied upon is considered pertinent to applicant's disclosure. (US Patent no. 5485949)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Aboagye whose telephone number is ,571-272-8165. The examiner can normally be reached on Mon - Fri 8:30am - 5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Dunn can be reached on 571-272-1171. The fax

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phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Aboagye
Assistant Examiner
Art unit 1725

A.M.
A.M.
6/13/05

KEVIN KERNS
PRIMARY EXAMINER

Kevin Kerns 6/14/05